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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR     | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|---|-------------|--------------------------|---------------------------|------------------|
| 09/783,405  | 02/15/2001  | Ajay Chandra V. Gummalla | 1875.0430001              | 4790             |
| 26111   | 7590        | 03/28/2005               | EXAMINER<br>CHO, HONG SOL |                  |
| STERNE, KESSLER, GOLDSTEIN & FOX PLLC<br>1100 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |             |                          | ART UNIT<br>2662          | PAPER NUMBER     |

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/783,405 | <b>Applicant(s)</b><br>GUMMALLA ET AL. |  |
|                              | <b>Examiner</b><br>Hong Cho          | <b>Art Unit</b><br>2662                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11012004</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. This office action is in response to the amendment filed on 11/1/04. Claims 1-24 are pending in the instant application.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being unpatentable over Chapman et al (U.S 6621812), hereinafter referred to as Chapman.

Re claims 1, 2, 13, 15, 16 and 22, Chapman discloses suppressing and compressing silence in a cable modem system (*asynchronous network environment*) of one or more of CMs (*local nodes*) communicating with CMTS (*centralized node*) in figure 2. Chapman discloses detecting a silent period when a speaker at the subscriber location (*upstream communication from the local node*) stops talking, and deactivating or reducing unsolicited grant services given by the CMTS (column 4, lines 59-64). Chapman discloses deactivating unsolicited grant service and request polling in response to said detecting a silent period (abstract, lines 3-7). Chapman discloses providing a first

level of unsolicited grant service (*a first level of unsolicited grant service is provided before the silence period*, column 4, lines 60-61) and a second level of unsolicited grant service in response to said detecting a silent period, wherein said second level of unsolicited grant service is reduced as compared to said first level of unsolicited grant service (*unutilized unsolicited grant service is used for a polling service; the number of empty unsolicited grants that are accepted before converting to polled requests are varied by the CMTS*, column 5, lines 19-22). Chapman discloses a connection flow in figure 5 for initiating and terminating voice activity detector (VAD) function between CM and CMTS using DOCSIS signaling protocol (column 4, lines 17-24). Chapman discloses generating the notification signal (*activity messages*) from VAD in a local node after receiving the audio signals (column 10, lines 55-60).

Re claims 3, 7-9, 14, 19 and 23, Chapman discloses reactivating unsolicited grant service when CMTS receives activity message from VAD indicating upstream bandwidth request in a request slot (*contention mini-slot*) from CM (column 4, lines 64-67; column 5, lines 1-5).

Re claims 4 and 17, Chapman discloses receiving an activity message including a silence flag marked to indicate the start of a silent period when VAD stops audio packet transmission. The last audio packet transmitted by VAD designates the start of a silent period.

Re claims 5 and 18, Chapman discloses at column 10, lines 6-9 allocating unsolicited grants when the audio packets are not transmitted in response to the

unsolicited grant services (*detecting silent period in response to a number of unused grant or a reduction in grant usage*).

Re claim 6, Chapman discloses at column 1, lines 26-28 a voice processing technique to reduce bandwidth usage by using VAD (*reducing downstream transmission by detecting a silent period*).

Re claim 10, as explained in the rejection of claim 7, Chapman further discloses receiving the notification signal (*activity message as a piggyback request*) to restart unsolicited grant service (column 8, lines 46-48).

Re claims 11, 12, 20 and 21, as explained in the rejection of claim 1, Chapman further discloses CMs including VOIP application (*transmitting voice data over an Internet Protocol*) and an associated transmit queue (column 4, lines 2-7).

#### ***Response to Arguments***

4. Applicant's arguments filed 11/01/04 have been fully considered but they are not persuasive.

In response to applicant's first argument on page 10, Applicant argues that Chapman does not disclose deactivating unsolicited grant service and request polling in response to said detecting a silent period. The Examiner respectfully disagrees. Chapman discloses switching from outputting unsolicited grant to polling for packet transmission requests detecting when a silent period is detected (abstract).

On page 12, the Applicant argues that Chapman does not disclose providing a first level of unsolicited grant service and a second level of unsolicited grant service in

response to said detecting a silent period, wherein said second level of unsolicited grant service is reduced as compared to said first level of unsolicited grant service. The Examiner respectfully disagrees. Chapman discloses providing a first level of unsolicited grant service before the silence period (column 4, lines 60-61) and a second level of unsolicited grant service when a silent period is detected by converting the number of unutilized unsolicited grant services to polled requests (column 5, lines 19-22).

Therefore, the Examiner concludes that Chapman still reads on the amended claims and the rejection of claims 1-23 stands rejected.

#### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc  
Hong Cho  
3-7-2005

  
**JOHN PEZZLO**  
**PRIMARY EXAMINER**